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EXAMINER

BUTLER, PATRICK NEAL

ART UNIT	PAPER NUMBER
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1791

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/757,828	Applicant(s) PARISH, BART P.	
	Examiner Patrick Butler	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2,3,7-21,30-32 and 34-53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2,3,7-21,30-32 and 34-53 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2, 3, 7-21, 30-32, and 34-53 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to Claims 2, 3, 7-21, 30-32, and 34-53, in Claims 2, line 3; Claim 7, line 3; Claim 12, lines 3 and 4; Claim 17, lines 3 and 4; Claim 30, lines 3 and 4; Claim 34, line 3; Claim 35, line 3; Claim 36, line 3; Claim 41, lines 3 and 4; Claim 46, lines 3 and 4; and Claim 51, lines 3 and 4, the transitional phrase "consists substantially" is unclear whether "consisting essentially of" or "consisting of" is intended. For purposes of examination, the Examiner interprets the claim step to be "consisting essentially" while the claim as a whole remains "comprising" (See MPEP § 2111.03). Claims 3, 8-11, 13-16, 18-21, 31, 32, 37-40, 42-45, 47-50, 52, and 53 are rejected via their dependency.

With respect to Claims 2, 3, 7-21, 30-32, and 34-53, in Claims 2, line 3; Claim 7, line 3; Claim 12, line 4; Claim 17, line 4; Claim 30, line 4; Claim 34, line 3; Claim 35, line 3; Claim 36, line 3; Claim 41, line 4; Claim 46, line 4; and Claim 51, line 3 and 4, the relative terminology "substantially" is not clarified by guidelines in Applicant's Specification as to the metes and bounds of the degree required to be substantial. For purposes of examination, the Examiner interprets that at least some of the listed

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material is present. See MPEP § 2173.05(b). Claims 3, 8-11, 13-16, 18-21, 31, 32, 37-40, 42-45, 47-50, 52, and 53 are rejected via their dependency.

Double Patenting

Applicant is advised that should claims 2, 3, 7-21, 30-32 be found allowable, claims 34-53 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 3, 7, 8, 12, 13, 17, 18, 34-37, 41, 42, 46, and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cantrell (US Patent No. 6,017,475) in view of Lovercheck et al. (US Patent No. 3,547,577).

With respect to Claims 2 and 34, Cantrell teaches a method of making a product using a combined combustible material of household garbage including plastic bottles and paper (method of making combustible products from recyclable materials; feedstock is ... thermoplastic material, cellulosic fiber) (see col. 1, lines 14-15; col. 5, lines 1-7; col. 11, line 64 through col. 12, line 4). As the household garbage contains

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materials that have been brought together in the production of the garbage, it is therefore already, to some degree, a blended material (blending feedstock). Cantrell teaches reducing particle size by using a grinder (inputting said blended feedstock into a grinder for the purpose of reducing the size of said blended feedstock) (see col. 9, lines 9-15; col. 11, line 64 through col. 12, line 4), squeezing the shards, applying high pressure, and extruding the material into bricks, blocks, or fire logs (compressing and extruding said reduced blended feedstock through a cuber so as to create combustible products) (see col. 9, lines 54-57; col. 10, lines 17-25 and 35-46; col. 11, lines 20-27). In extruding, the location on the apparatus that the material is extruded from would be the die hole used to form combustible products. Moreover, as the expeller and extruder would constitute at least two dies, there would be at least two die holes. It is noted on page 9, lines 5-9, within paragraph [0023], of Applicant's specification that Applicant defines cuber to encompass an apparatus that makes items of a variety of shapes:

The term "cube" refers to a discrete product of any size or shape that contains both cellulosic material and thermoplastic material. The cube need not be square or even symmetrical. While it may be useful to form the products in the shape of cubes, they can be any suitable symmetrical configuration such as the shape of a tube or a sphere.

This limitation is taught by Cantrell's bricks, blocks, and fire logs. With respect to the limitations "consists" and "substantially" regarding the selection of feedstock, the examiner interprets the limitation to require at least one of the Markush members listed in more than a trace amount. Further, as the claim language remains open with the

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limitation "comprising," additional materials may be added, which may be considered additional process steps which would not be effected by the limitation "consists."

Therefore, the limitations are at least by the plastic bottle article.

Cantrell does not expressly teach monitoring the temperature of the combustible products for purposes of fire prevention.

Lovercheck teaches forming briquettes 36 and maintaining them at 130 °F to sterilize the material (see col. 2, lines 48-57), which is interpreted as meaning the temperature of the combustible products is monitored to some degree since the temperature is maintained (teach monitoring the temperature of the combustible products for purposes of fire prevention).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to heat the cubes of Cantrell as taught by Lovercheck in order to provide a sterilized product of garbage (see Lovercheck, col. 1, lines 33-47).

With respect to Claims 2, 7, 12, 17, 34, 36, 41, and 46, Cantrell does not appear to explicitly teach that the grinder operating torque is within the claimed range (e.g., between about 18,000 and 20,000 ft-lbs of torque per motor shaft). However, in this regard, Cantrell further teaches that the grinder operates at a rated velocity depending upon the configuration of the machine used and that it rotates so that the work piece is ground to the desired shape, size, and finish (see col. 9, lines 27-35). Cantrell's teaching optimizing the rated velocity and position, by definition, would be an optimization of the rotational force or torque via optimization of its components. Given that the velocity and material is ground properly, the torque would be a function of these

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variables. As such, Cantrell obvious recognizes that the grinder operating torque is a result-effective variable. Since the grinder operating torque would be a result-effective variable, one of ordinary skill in the art would have obviously determined the optimum grinder operating torque applied in the process of Cantrell through routine experimentation based upon rated velocity and grinding to the desired shape, size, and finish (see col. 9, lines 27-35).

With respect to Claims 3, 8, 13, 18, 35, 37, 42, and 47, Cantrell does not appear to explicitly teach that the grinder operating speed is within the claimed range (e.g., between about 75 to about 80 rpm). However, in this regard, Cantrell further teaches that the grinder operates at a rated velocity depending upon the configuration of the machine used and that it rotates so that the work piece is ground to the desired shape, size, and finish (see 9, lines 27-35). As such, Cantrell obvious recognizes that the grinder operating speed is a result-effective variable. Since the grinder operating speed would be a result-effective variable, one of ordinary skill in the art would have obviously determined the optimum grinder operating speed applied in the process of Cantrell through routine experimentation based upon rated velocity and grinding to the desired shape, size, and finish (see col. 9, lines 27-35).

Claims 9-11, 14-16, 19-21, 38-40, 43-45, and 48-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cantrell (US Patent No. 6,017,475) in view of Lovercheck et al. (US Patent No. 3,547,577) as applied to claims 2, 7, 12, 17, 34, 36, 41, and 46 above, and further in view of Jesse (US Patent No. 5,342,418).

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With respect to Claims 9, 14, 19, 38, 43, and 48, Cantrell teaches making combustible products from recyclable materials as previously described. Cantrell teaches using combustible rubbish (see col. 1, lines 13-16 and 25-31) including plastic bottles (see col. 5, lines 1-7).

Cantrell does not appear to expressly teach polyethylene, polypropylene, and polybutylene as components of the combustible rubbish.

Jesse teaches that polyethylene, polypropylene, and polybutylene (thermoplastic material is selected from the group consisting of polyethylene, polypropylene ... polybutylene) are elements of combustion obtained from disposable diapers (recyclable materials) (see col. 7, 22-40 and 49-61).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the polymers in disposable diapers as taught by Jesse in the process of making combustible products as taught by Cantrell because Cantrell requires combustible rubbish and Jesse teaches combustible disposable material. Moreover, Jesse teaches that the material is well known to be recycled to make combustible products (see col. 7, 22-40 and 49-61).

With respect to Claims 10, 11, 15, 16, 20, 21, 39, 40, 44, 45, 49, and 50 it is noted that there is no positively claimed step of producing disposable diapers, sanitary pads, adhesive liners, and hospital gowns. Thus, any materials in disposable diapers, sanitary pads, adhesive liners, and hospital gowns would be materially identical to byproducts and waste of production. Jesse teaches using disposable diapers and sanitary pads (hygiene pads) (see col. 7, lines 49-61).

Claims 30-32 and 51-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cantrell (US Patent No. 6,017,475) in view of Lovercheck et al. (US Patent No. 3,547,577) as applied to Claim 2 and 34 above, and further in view of Wesley et al. (US Patent No. 4,789,507).

Cantrell in view of Lovercheck teaches a method of making combustible products as previously described with respect to claim 34.

With respect to Claims 30, 31, 51, and 52, Cantrell teaches optimization of grinder operating torque as described above.

Cantrell does not expressly teach monitoring the operational characteristics of said grinder and cuber using a software application. It is noted that there is no claimed step of controlling, regardless of any data "monitor[ed]." Therefore, any mentioning of any process monitoring involving 1) software and 2) a grinder or extruder (cuber) would meet the limitations of the claim since any parameter could be used to control the process regardless of whether or not specific controlling is taught.

Wesley teaches that when using an extruder, the speed of the extruder (cuber; speed of the cuber) is monitored as well as the pump outlet pressure (cuber; the pressure required to perform the cubing operation) (see col. 8, lines 41-56).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Wesley's monitoring with Cantrell's process of making combustible products in order to form a feedback control of the process as well as to control the rate of flow into the extruder (cuber) (see col. 8, lines 41-56).

With respect to Claims 33 and 53, Cantrell does not appear to explicitly teach that the grinder operating speed is within the claimed range (e.g., between about 75 to about 80 rpm). However, in this regard, Cantrell further teaches that the grinder operates at a rated velocity depending upon the configuration of the machine used and that it rotates so that the work piece is ground to the desired shape, size, and finish (see 9, lines 27-35). As such, Cantrell obvious recognizes that the grinder operating speed is a result-effective variable. Since the grinder operating speed would be a result-effective variable, one of ordinary skill in the art would have obviously determined the optimum grinder operating speed applied in the process of Cantrell through routine experimentation based upon rated velocity and grinding to the desired shape, size, and finish.

Response to Arguments

Applicant's arguments filed 20 January 2009 have been fully considered but they are not persuasive.

Applicant argues with respect to the 35 U.S.C. § 112, first paragraph, rejections. Applicant's arguments appear to be on the grounds that:

1) Applicant's amendment of Claims 2, 3, 7-12, and 30-32 removed the basis for the rejection.

Applicant argues with respect to the 35 U.S.C. § 103(a) rejections. Applicant's arguments appear to be on the grounds that:

2) Cantrell does not teach the limitation "feedstock consists substantially..." because liquid is present in volume proportions of 25-70% liquid.

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3) Torque is not a result-effective variable since Cantrell does not suggest or teach that torque is an important factor or even a factor.

4) No reason for optimizing torque within the claimed range is given.

5) The grinder speed is not a result effective variable.

6) No reason for optimizing grinding speed within the claimed range is given.

The Applicant's arguments are addressed as follows:

1) In view of Applicant's amendment of Claims 2, 3, 7-21, and 32, the Examiner withdraws the previously set forth 35 U.S.C. § 112, first paragraph, rejection as detailed in the Claim Rejections - 35 USC § 112 section of the Office Action dated 21 August 2008.

2) Cantrell's volumetric reduction of 30-75% is compared to the "original volume" (see col. 9, lines 57-65 and col. 12, lines 20-30). Thus, the Examiner interprets the reduction to be comparing the post-expeller material to the initial material processed instead of comparing the post-expeller material to material entering the expeller. Moreover, Cantrell's volumetric reduction of 30-75% does not specify that the de-bulking is solely due to water removed. The debulking would be due to rearranging the material to take up less space via converting to shard form (see col. 12, lines 5-11). Thus, no minimum of water is required in Cantrell's garbage.

2) As recited above, the definition of substantially is not defined by applicant's Specification. Thus, no standard is presented by Applicant to determine the claimed range:

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With respect to Claims 2, 3, 7-21, 30-32, and 34-53, in Claims 2, line 3; Claim 7, line 3; Claim 12, line 4; Claim 17, line 4; Claim 30, line 4; Claim 34, line 3; Claim 35, line 3; Claim 36, line 3; Claim 41, line 4; Claim 46, line 4; and Claim 51, line 3 and 4, the relative terminology “substantially” is not clarified by guidelines in Applicant's Specification as to the metes and bounds of the degree required to be substantial. For purposes of examination, the Examiner interprets that at least some of the listed material is present. See MPEP § 2173.05(b).

2) Moreover, as recited above:

With respect to the limitations “consists” and “substantially” regarding the selection of feedstock, the examiner interprets the limitation to require at least one of the Markush members listed in more than a trace amount. Further, as the claim language remains open with the limitation “comprising,” additional materials may be added, which may be considered additional process steps which would not be effected by the limitation “consists.” Therefore, the limitations are at least by the plastic bottle article.

3) As clarified above, optimization of the torque is taught via the optimization of its components:

However, in this regard, Cantrell further teaches that the grinder operates at a rated velocity depending upon the configuration of the machine used and that it rotates so that the work piece is ground to the desired shape, size, and finish (see col. 9, lines 27-35). Cantrell's teaching of optimizing the rated velocity and position, by definition, would be an optimization of the rotational force or

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torque via optimization of its components. Given that the velocity and material is ground properly, the torque would be a function of these variables. As such, Cantrell obvious recognizes that the grinder operating torque is a result-effective variable.

4 and 6) It is noted that Applicant does not contest that the grinder's torque and operating speed as optimized by Cantrell would fall within the claimed ranges.

4) The purpose of optimizing the torque is recited above:

Since the grinder operating torque would be a result-effective variable, one of ordinary skill in the art would have obviously determined the optimum grinder operating torque applied in the process of Cantrell through routine experimentation based upon rated velocity and grinding to the desired shape, size, and finish (see col. 9, lines 27-35).

5) As recited above, optimization of the grinder operating speed is taught by Cantrell:

However, in this regard, Cantrell further teaches that the grinder operates at a rated velocity depending upon the configuration of the machine used and that it rotates so that the work piece is ground to the desired shape, size, and finish (see 9, lines 27-35). As such, Cantrell obvious recognizes that the grinder operating speed is a result-effective variable.

6) The purpose of optimizing the grinder operating speed is recited above:

Since the grinder operating speed would be a result-effective variable, one of ordinary skill in the art would have obviously determined the optimum grinder

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operating speed applied in the process of Cantrell through routine experimentation based upon rated velocity and grinding to the desired shape, size, and finish (see col. 9, lines 27-35).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick Butler whose telephone number is (571) 272-8517. The examiner can normally be reached on Mon.-Thu. 7:30 a.m.-5 p.m. and alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on (571) 272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/P. B./
Examiner, Art Unit 1791

/Christina Johnson/
Supervisory Patent Examiner, Art Unit 1791